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Sustainable Food Security

P. K. Jain, B. S. Hansra, K. S. Chakraborty and Jayashree M. Kurup (eds.), 2010, New Delhi, Mittal Publications, ISBN 81-8324-356-8, hard cover, pp.xxii+401, price: Rs.1100

An estimate made by the Food and Agriculture Organisation (FAO) in 2009 has revealed that nearly one billion people in the world are undernourished and majority of them belong to the developing and least developed countries. Food security becomes a reality only when all people at all times have access to adequate quantity of safe and nutritious food for an active and healthy life. The 2009 report of the World Food Programme (WFP) has observed that India's malnutrition figures are not coming down despite the government programmes of the public distribution system (PDS), the integrated child development services (ICDS) and the mid day meal scheme (MDMS). The report suggests that there is need for revamping the public distribution system and making larger public investment to address the wants of rural population and thereby to achieve the national and *Millennium Development Goal* of reducing hunger and malnutrition. India has achieved self-sufficiency in food grains, but the achievement at the national level did not percolate down to households, and the bottom 30 per cent of the population are still under the clutches of chronic food insecurity. In this backdrop, the proposed National Food Security Act (NFSA) has put forward greater challenges for the policy planners and administrators to ensure food security at household as well as individual level. To achieve sustainable food security, India has to increase the production in agriculture and allied sectors of horticulture and live stocks. Conservation of common property, water and biodiversity resources, and rehabilitation of wastelands are the cornerstones of a sustainable food security programme. The book under review entitled 'Sustainable food security' is very much relevant to this scenario of food security in India. The volume comprises of 30 articles contributed by agricultural scientists and academicians from institutions and

organisations of repute in India. The theme of this edited work, namely that sustainable agriculture production and socio-economic empowerment of people are central to the programmes and technologies implemented to achieve sustainable food security, has received greater significance in the context of the forthcoming NFSA.

The major topics discussed in the volume are the concepts and problems of sustainable food security, interrelationship between food security and sustainable agriculture production, technology transfer and extension systems, good agricultural practices and phyto-sanitation standards, watershed management, dairying, indigenous and alternate food production, earthworm technology, soil health management, system of rice intensification, fodder cultivation and pasture management, use of residues, empowerment of women, performance of self help groups, marketable surplus and management of rural value chain.

The introductory article *"sustainable food security - emerging issues"* has discussed the multiple causes of the rising food insecurity viz., the issues of increasing population, decreasing nutritional security, economic inaccessibility of food, shrinking agricultural land and degradation of natural resources mainly due to deteriorating soil health, falling water tables, climate change, and global warming. A number of measures are suggested to ensure sustainable food security which include stabilising population, increasing productivity, promoting diversification of crops, multiple cropping, safe storage of food grains, scientific pre/post harvesting and processing technologies, efficient land and water resource management, dry land management and waste land development, sustainable environment and forest management, and use of information and communication technology (ICT) in agriculture. Most of the subsequent articles in the volume are conceptual presentations on the aforesaid issues using secondary data for analysis and development of the subthemes.

Watershed management through participatory approach and cost effective technologies for rain water harvesting and conservation discussed in the book are having relevance in the wider agricultural context of India.

Training and extension services for farmers are identified as essential components for ensuring local level food security. Extension systems play an important role in transforming technologies to the benefit of the farmers. Sustainable agricultural development demands a paradigm shift from top down approach towards participatory technology development that blends indigenous wisdom of framers with modern technologies. Community participation and linkages of institutions with farmers and their organisations are necessary for the success of sustainable agriculture development. The concept of good agricultural practices (GAP), discussed in the book is a new challenge for Indian agriculture sector. They ensure the environmental, economic and social sustainability for farm production and post-production process by making agriculture less dependent on chemicals and pesticides.

Social development of the people through empowerment of women, formation and strengthening of community based organisations (self-help groups of women/farmers), and training in ICT and subsequent application of ICT in various stages of agricultural production and marketing are discussed in the book as strategies to enhance people's capabilities for achieving sustainable agricultural production.

The article 'Impact of System of Rice Intensification (SRI) on food security in Tripura' has presented the positive effect of the new technology adopted in some parts of Tripura to promote sustainable food production by creating more suitable growing environment for irrigated rice plants. SRI is an innovation, developed as a result of 34 years of dedicated work of Fr. Laulanie, a Jesuit priest for production of rice with less input of water, fertilizer, seed, labour and technology. Experiments on various aspects of SRI are still made in different parts of the world including India mainly by individuals and civil society organisations for promoting sustainable agricultural growth. The analysis of the findings presented in the article has shown that in a few villages in Tripura in nearly 60 per cent less area of cultivable land and 45 per cent less of inputs compared to the conventional methods of agriculture, the yield of paddy could be increased to almost 120 per cent with the SRI methods. Financing SRI application in cultivation, and research and documentation on SRI are suggested as policy recommendations of the

study. SRI methodology could be experimented in different regions and crops for cost effective and sustainable food production.

As far as organisation of the volume is concerned, the editors could have classified the articles according to the sub-themes presented in the introductory article which would have provided better understanding of the major themes and sub-themes of sustainable food security attempted in the book. The agricultural technologies, production practices, and livelihood options described in the book are presented from the perspective of the north-eastern region of India. Although they do not give a cross sectional picture of food security in India, yet they are commendable as providing the possibilities of sustainable food security in a less developed and researched region in India. The book is useful to community workers interested in experiments and innovations in agriculture and allied sectors. In particular, students and researchers of sustainable food security will benefit from the different contributions in the volume.

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